Washington State Department of Transportation

SoundTransit

Description of Alternatives to be Evaluated in the SR 520 Project Draft EIS

Four alternatives have been selected by the SR 520-Trans-Lake Washington Project Executive Committee to be evaluated in the DEIS: three build alternatives and the no action alternative.

1) No Action (4 existing general purpose lanes)

2) Four Lanes (4 general purpose lanes reconstructed to current design standards)

3) Six Lanes (4 general purpose, 2 combined HOV/BRT lanes)

4) Eight Lanes (6 general purpose, 2 combined HOV/BRT lanes)

One new alternative, the, is being recommended by WSDOT.

3A) Modified Six Lane Option (4 general purpose, 2 HOV lanes) Of reduced length and scope to fit an RTID funding package.

The Committee also recommended that Sound Transit's Long-Range Plan, which identifies light rail transit (LRT) on I-90, not be changed to SR 520. The SR 520 Project EIS will not analyze that proposed transit system.

Alternative 1: No Action

The No Action Alternative would not include construction of any new improvements on SR 520. It is assumed that SR 520 would be maintained and operated as it is today. It does not include replacement of the floating bridge or any of the bridge structures to reduce the risk of failure due to catastrophic events such as a major storm or an earthquake.

Alternative 2: Four Lanes

Alternative 2 would make no major capacity improvements to SR 520. This alternative would replace the floating bridge due to its limited remaining service life as well as replace seismically deficient bridges on SR 520 (including Portage Bay and the fixed approach structures to the floating bridge).

The roadway from I-5 on the west to Lake Washington Boulevard/Bellevue Way NE on the east, with a few exceptions, would be reconstructed to current design standards, including two 12-foot general purpose lanes in each direction with 4-foot inside and 10-foot outside shoulders. The facility would be realigned to the north at Portage Bay and across Lake Washington.

A 12-foot bicycle and pedestrian path would be provided along SR 520 between Montlake Boulevard in Seattle and 96th Avenue NE in Kirkland, connecting with existing bicycle and pedestrian paths. Noise walls and updated stormwater facilities would be constructed along the corridor from I-5 to Bellevue Way.

The I-5 Interchange would be modified to provide an HOV direct connection to the I-5 reversible lane for the west to south movement.

The Montlake interchange would be reconstructed to current standards and the existing outside flyer stops would be up graded.

The Lake Washington Boulevard interchange would be reconstructed to current standards, providing the same functional connections that exist today. The unused "ramps to nowhere" would be removed.

The floating bridge and fixed approach structures would be reconstructed and designed to allow future widening of 30 feet for High Capacity Transit only.

The existing westbound HOV lane will be reconstructed to current standards, and the under-crossings at Evergreen Point Road, 84th Avenue NE, 92nd Avenue NE, and Bellevue Way NE would be replaced. The Evergreen Point, and 92nd Avenue flyer stops would be reconstructed on the outside of the roadway.

A $70 million Flexible Transportation package would be included in this alternative. The package would include a framework demand management and land use corridor agreement that would implement the SR 520 Flexible Transportation Program and outline the expected actions and commitments of the parties involved. Oversight of the program would be guided by adaptive management principles, allowing flexibility to adjust the strategies over time to support meeting the framework demand management and land use corridor agreement's goals. Major elements of the program would include vanpooling programs; public information, education and promotion programs; employer-based programs; land use as demand management; and other miscellaneous programs.

Alternative 3: Six Lanes-4 GP and 2 HOV/Bus Rapid Transit (BRT) Lanes

On SR 520, a continuous HOV/BRT lane and two general purpose lanes would be provided each way from I-5 to West Lake Sammamish Parkway, for a minimum of six lanes, with the HOV/BRT lanes on the inside. To improve performance and safety, the HOV/BRT lanes would be separated by a 4-foot buffer between the HOV/BRT lanes and the general purpose lanes. Auxiliary lanes would be added between the following interchanges:

- I-5 and Montlake Boulevard
- 92nd Ave NE and Bellevue Way NE
- Bellevue Way NE and I-405
- I-405 and 148th Ave NE
- 148th Ave NE and NE 40th St
- West Lake Sammamish Parkway and Redmond Way/SR 202

The interchange at I-5 would be reconstructed with HOV ramps connecting to the reversible lanes both north and south of the interchange. It would also include an added auxiliary lane to southbound I-5 from SR 520 to Stewart Street. The ramp from southbound I-5 to eastbound SR 520 would be moved to the right side via a new one-lane tunnel built under I-5. The ramp from westbound SR 520 to southbound I-5 would be moved to the right side of I-5 via a new two-lane aerial structure.

The interchanges at Montlake Boulevard, Lake Washington Boulevard, Bellevue Way NE, and I-405 would be completely removed and reconstructed with all new bridges and ramps. The reconstructed Montlake Boulevard interchange includes braided HOV ramps from SR 520 to Montlake Boulevard, and a second bascule bridge parallel to and east of the existing Montlake Bridge. Each bridge would carry three lanes of traffic in one direction (two GP and one HOV).

Interchanges at 84th Avenue NE, 92nd Avenue NE, 124th Avenue NE, 148th Avenue NE, and West Lake Sammamish Parkway would be upgraded to current design standards.

HOV direct access ramps (to/from the west only) would be constructed at 108th Avenue NE and NE 31st Street.

The Bellevue Way interchange reconstruction would close the existing ramps at 108th Ave NE and combine them to form a new combined interchange at Bellevue Way NE. A median transit flyer stop will be constructed under Bellevue Way.

At I-405, all of the existing system ramps would be demolished and replaced by new ramps that provide a higher design speed. In addition, HOV–to-HOV system ramps would be provided in three quadrants (NW, SW, & SE). The new interchange configuration will eliminate the existing weave sections between I-405 and 124th Ave NE.

The Portage Bay Viaduct and fixed and floating bridge structures across Lake Washington would be replaced. The width assumes current design standards throughout the length of the corridor.

The floating bridge and fixed approach structures would be designed to allow future widening of 30 feet for High Capacity Transit only.

A 12-foot bicycle/pedestrian path would be provided on the north side of the new facility (with the exception of Evergreen Point to 92nd Ave NE where the path would be on the south side) and would provide a continuous, grade-separated corridor from Montlake to Redmond.

Several segments in the corridor would be lidded, and most other segments would have noise walls. Lid locations include I-5/SR 520 Interchange area, Montlake, Evergreen Point Road, 84th Avenue NE, and 92nd Avenue NE. These designs are in progress and will become part of the project description for the EIS analysis.

Stormwater treatment facilities would be constructed in the corridor.

A $264 million Flexible Transportation Package would be included in this alternative, similar to the one described under Alternative 2.

Alternative 3A: Six Lanes-4 GP and 2 HOV Lanes

On SR 520, the outside HOV lanes that exist east of I-405 would be extended to the west across Lake Washington, and terminating at the Montlake Boulevard ramps. The new and reconstructed lanes from I-5 to Bellevue Way would be 12-feet wide and inside and outside shoulders would be 10-feet wide. This alternative would replace the floating bridge and approaches and the facility would be realigned to the north at Portage Bay and across Lake Washington.

A 12-foot bicycle and pedestrian path would be provided along SR 520 between Montlake Boulevard in Seattle and 96th Avenue NE in Kirkland, connecting with existing bicycle and pedestrian paths. Noise walls and updated stormwater facilities would be constructed along the corridor from I-5 to Bellevue Way.

The I-5 Interchange would be modified to provide an HOV direct connection to the I-5 reversible lane for the west to south movement. One small lid would be built over SR 520 in the vicinity of 10th Avenue East. The Portage Bay Bridge would be reconstructed with two general purpose lanes in each direction, plus auxiliary lanes between I-5 and the Montlake Boulevard ramps.

The Montlake interchange would be reconstructed to current standards, including a small lid, and the existing outside flyer stops would be upgraded. The westbound off-ramp would be widened to add an HOV queue bypass lane on the right side.

The Lake Washington Boulevard interchange would be reconstructed to current standards, providing the same functional connections that exist today. The unused "ramps to nowhere" would be removed.

Interchanges at 84th Avenue NE and 92nd Avenue NE would be upgraded to current design standards. Lids would be constructed at 76th Avenue NE, 84th Avenue NE, and 92nd Avenue NE and most other segments would have noise walls.

The existing flyer stops at Evergreen Point and 92nd Avenue NE would be rebuilt, and new outside flyer stops would be constructed at Bellevue Way, requiring some ramp modification in the interchange. A new eastbound HOV direct access ramp to 108th Avenue NE would be built serving transit access to South Kirkland P&R.

The floating bridge and fixed approach structures would be designed to allow future widening of 30 feet for High Capacity Transit only.

A $70 million Flexible Transportation package would be included in this alternative. The package would include a framework demand management and land use corridor agreement that would implement the SR 520 Flexible Transportation Program and outline the expected actions and commitments of the parties involved. Oversight of the program would be guided by adaptive management principles, allowing flexibility to adjust the strategies over time to support meeting the framework demand management and land use corridor agreement's goals. Major elements of the program would include vanpooling programs; public information, education and promotion programs; employer-based programs; land use as demand management; and other miscellaneous programs.

Alternative 4: Eight Lanes-6 GP and 2 HOV/BRT Lanes

Alternative 4 is similar to Alternative 3 but also adds a third general purpose lane in each direction between I-5West Lake Sammamish Parkway for a total of eight lanes. One exception is within the Montlake and Lake Washington Blvd interchanges where two GP lanes in each direction are continuous. The third GP lane will add and drop on each side of the interchange.

The ramp from Mercer Street to northbound I-5 would be moved to the right side of I-5 via a one-lane tunnel under I-5.

A four-lane cut-and-cover underground tunnel would be constructed at the Montlake Interchange from SR 520 at the Museum of History and Industry parking lot to the Pacific/Montlake Blvd intersection.

In addition, the NE 40th Street and NE 51st Street Interchanges would be partially reconstructed and the HOV direct access at NE 31st Street would be replaced by a median transit flyer stop at NE 40th Street.

A $234 million TDM package would be included in this alternative, similar to the one described under Alternative 2.